porting the abacus, which is hollow on each face. The height is divided into 5, as before. Give one to the pedestal,—divide the remainder into 13; give 2 to the entablature; the size of the cap is one diameter to 10 minutes.

The *Composite Order* was invented by the Romans, and partakes of the Ionic and Corinthian orders, but principally of the latter, particularly in the leaves of the capitals. This order shews that the Greeks had, in the three original orders, exhausted all the principles of grandeur and beauty, and that it was not possible to frame a fourth but by combining the former.

This order is usually placed the last, on account of its having been the last invented, though some architects of eminence assign it the fourth place, on the ground that they should succeed each other according to their degrees of strength, and in the progression that must be observed when they are employed together.

In its cap it imitates in part the Ionic and Corinthian orders, having a similarity in the scroll as to the one and in the leaves as to the other. In general outline as to its proportions is the same as the Corinthian.

ENCAUSTIC TILES.

Two extensive factors of pottery ware, Messrs. Chamberlain, of Worcester, and Mr. Minton, of Stoke upon Trent, are busy in the preparation of encaustic tiles. These tiles are the true and genuine ecclesiastical ornaments for church pavements, and we hope no more sandstone flags will again be laid in a sacred edifice so long as tiles can be procured. If the foundation on which the tiles are to be laid is sound and level, the cost of appropriate tiling is not materially greater than of stone. The improved machinery of modern times subjects these tiles to great pressure, and they are consequently much harder and less porous, and therefore more durable than the ancient tiles. Indeed, unless there be some accidental defect in the clay, it is next to impossible, either by force or friction, to inflict any injury on them. They will sustain the roughest usage to which they are at all likely to be subjected, even by the hob-nails of clodhoppers. These advantages are some set-off against the mechanical look which the modern tiles have, but which is not apparent in the ancient. The patterns in the first are more uniform and seemingly the product of machinery, whilst the latter appear to be the work of the hand. Of the tiles of the two makers we have mentioned we prefer those of Mr. Minton. They have the more genuine ancient features about them. The tiles laid in the chancel of the Temple Church are of his manufacture. The patterns were almost wholly obtained from the Chapter House of Westminster Abbey, where the original pavement, having been carefully boarded over when that building was fitted up as a Record Office, remains in probably greater perfection than any elsewhere. Many of these patterns are of great beauty; some consist of heraldic cognizances, others of figures, some evidently relating to the life of Edward the Confessor, and others of very beautiful scrolls. They are probably as old as the reign of Edward III., who decorated this structure. The average price of each tile is sixpence. The ground is unglazed; the colours are a red, somewhat between Indian and light red, with the patterns of orange or bright yellow, highly vitrified and glazed. The red is decidedly susceptible of improvement. In the ancient tiles, the whole surface was glazed, and it must have been difficult to walk on them, unless bare-footed. These tiles are about an inch thick. Besides these, Mr. Minton has produced a cheaper kind, which are wholly unglazed; they are red, buff, and black. The alternations of the black tiles are effective, and the whole appearance rather Romanesque than Gothic, is chaste, but less ecclesiastical than the glazed. For this reason they are better suited to lay buildings, and are worth the attention of architects, for halls and passages, even of very moderate-sized houses. Very ornamental, too, they would prove for hearths and mantel-pieces, &c., and they might be applied for dairies, conservatories, and even some articles of domestic furniture.

In the imitation of the ancient tiles, only red and buff colours hitherto appear to have been used. It may be well to point out that they were made of other colours. Green and white tiles were used by Henry VIII. for Hampton Court, these being his chosen (the Tudor) colours, and we should be glad to see them restored to the great hall of that palace.

One of the first specimens of the revival of the tesselated pavement, we believe, is to be seen in the hall of the Reform Club. It was manufactured by Mr. Singer, and laid on a principle for which he took out a patent. Excellent as the effect of this pavement is, it has a dingy appearance, and this, we believe, is unavoidable in the process adopted by Mr. Singer. The tesseræ, which are usually about an inch square, are laid not one by one upon the floor itself, but on a ground of cement, thus forming slabs about eighteen inches square, which slabs are then placed together on the floor. In order to obtain a level surface, the tesseræ so fixed are, we believe, planed or ground smooth; for this purpose they are made rather softer than would otherwise be necessary, and thus their ground surface absorbs the dirt. Mr. Blashfield has improved on this process, and though he adopts Mr. Singer's method of laying, he makes the tesseræ themselves so true and smooth, that they require no further levelling. They can, therefore, be made much harder, are so made accordingly, and their original vitrified surface is not disturbed. Their colours remain unaffected by wear, and the white tesseræ are as clean and pure as biscuit china. These tesseræ, of the porcelain (being flint and fine clay) are manufactured in the powdered state, in all varieties of colour, and consequently are coloured throughout their entire body; the powder, which is almost of impalpable fineness, is made to cohere by means of hydraulic pressure. Thus formed, they are highly vitrified. Pavements of this kind are necessarily much more costly than those of tiles, and their price will limit the use of them as pavements, except in the mansions of the wealthy. Still in passages subjected to much traffic, they are cheaper than oil-cloth. We have seen a beautiful mosaic that cost fifty pounds, but will last a thousand years, substituted from economical motives, for floorcloth of similar size, which it was necessary to replace annually. They might well be used before the altars of churches, and sufficient remains of Abbot Ware's mosaic pavement, laid in Henry the Third's reign, before the high altar in Westminster Abbey, exist to furnish models of ancient workmanship. The revived use of these tesseræ will lead, perhaps, to the erection of tombs like those of Edward the Confessor and Henry III. (What a shame that the British Museum did not secure Cavalini's shrine at Strawberry Hill?) and it is not difficult to see the application of this mosaic work to many minor ornamental purposes, such as chess-boards, tables, &c.—*Athenæum.*

FLOATING ISLAND.

This is one of Mr. Etzler's gigantic, and, we will venture to say, impractical plans. It will amuse, however. Our friends may suppose themselves inhabitants of this floating city and community, shifting about in the Atlantic, following the sun for a long day, and hastening over the night to hail him at his morning's rise. Sailing in search of seasons, and scudding off from vile fogs and pestilential vapours—ripening their crops under the tropic, and reaping in the temperate zones. The following letter on the subject we extract from a contemporary journal:—

"Sir, I trust you will allow me, through your valuable and widely-circulated journal, to bring before the public a few remarks on the subject of a floating Island, which has recently gone the round of the newspapers and other periodicals. It would appear that a Mr. Stollmeyer claims to be the inventor of the stupendous project of a floating mass, or as it is termed an "Island," incapable of sinking under any circumstances, thereby effecting a vast improvement or reform in ship-building.

"Mr. Stollmeyer would be no doubt perfectly right in the supposition that if a buoyant mass, ten or twenty times as large as the largest ships ever constructed, could be so compacted as to be impregnable to the force of the waves, exempt from accident, and easy of propulsion, a great stride would be made towards the perfection of navigation. Under such circumstances, the sea would offer fewer obstacles to locomotion than the land. It strikes me, however, that Mr. Stollmeyer is not the first projector of so great an undertaking; but that he is only following in the wake of the Rev. Mr. Cobbold, who, it appears, eight months ago had a patent granted to him for "certain improvements, in the means of sustaining, supporting, and propelling human and other bodies on and in the water." Among the various interesting details of that gentleman's specification, which embraces several methods of supporting the human body on water, and of effecting communication between vessels in stress of weather, and between stranded vessels and the shore, there is a plan, on new and scientific principles for sustaining and supporting wharfs, piers, bridges, light-houses, harbours of refuge, and breakwaters; and for supporting, sustaining, and propelling other structures, as rafts, vessels, and buildings which may be employed for the transportation of passengers and merchandize, and as floating towns and manufactories.

"The specification is enrolled in Chancery, and I have perused it with much interest, believing it to be eminently calculated to shew considerable light on the principles of navigation, and on other highly important matters connected with the trade and commerce of this country. Among the various drawings illustrative of his invention, there is a plan, with elevations drawn to scale, of a stupendous raft, or floating town, supported on sevens' hundred wrought-iron air-tight tubes or compartments, each compartment being 50 feet long by six feet in diameter, the whole comprising an area of one thousand feet in length by 250 feet in width, propelled by fourteen engines of 150 horse power each, and carrying with it a breakwater, or barrier against the sea, of peculiar construction, which is intended to ensure to the whole structure a perpetually horizontal position, and to render it as nearly as possible without vibration—estimated burden about 27,000 tons and draught of water when freighted about two feet, that is one-third only of the diameter of the air-tight tubes themselves. The tubes or compartments, are represented strongly attached laterally at the distance of about seven feet apart, by means of strong bars and chains of iron; and they are further compacted by powerful beams or girders of wood laid transversely from tube to tube, and firmly bolted down to the apex of each tube, by means of immense bolts passing through these beams and penetrating through strong flanges of solid iron—the beams themselves forming the deck or foundation, upon which are constructed the numerous cabins, saloons, and warehouses, as described in the plan and drawings. It would occupy too much of your valuable space to go further into detail; but as it is a matter of grave consideration whether we shall continue to submit to an annual loss of 1,500 souls, and of property to the amount of three millions sterling on and around our own shores, I should conceive that any suggestion, having for its object the abridgment of that mournful list which we are annually compelled to read, is deserving of serious attention, and might tend to open up to human science, enterprise, and capital the most glorious and profitable speculation in which they could simultaneously embark.

Moving Houses.—One of the sights to stare at in America is that of houses moving from place to place. We were often amused by watching this exhibition of mechanical skill in the streets. They make no difficulty of moving dwellings from one part of the town to another. Those I saw travelling were all wooden houses, that is, built entirely of wood, except the chimneys; but it is said that brick buildings are sometimes treated in the same manner. The largest dwelling that I saw in motion was one containing two stories of four rooms each; forty oxen were yoked to it. The first few yards brought down the two stacks of chimneys, but it afterwards went on well. The great difficulties were the first getting it in motion, and the stopping exactly in the right place. This locomotive power was very convenient at Cincinnati, as the constant improvements going on there made it often desirable to change a wooden dwelling for one of brick; and whenever this happened, we were sure to see the ex-No. 100 of Main-street or the ex-No. 55 of Second-street creeping quietly out of town, to take possession of a humble suburban station on the common above it.—*Mrs. Trollope.*

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